

PATENTS 112056-0123 P01-1572

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### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re The Application of: Robert L. Fair et al.	)	
Serial No.: 10/705,470	) )	Examiner: Not yet assigned
Filed: November 10, 2003	) )	, ,
	)	Art Unit: 2184
For: METHOD FOR DETECTING	)	
LEAKED BUFFER WRITES	)	
ACROSS WAFL CONSISTENCY	)	
POINTS	)	
		Cesari and McKenna, LLP
		88 Black Falcon Avenue
		Boston, MA 02210
		July 12, 2005

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Melissa L. Altman

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In Re The Application of: Robert L. Fair et al.	)	
Serial No.: 10/705,470	) )	Examiner: Not yet assigned
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For: METHOD FOR DETECTING LEAKED BUFFER WRITES ACROSS WAFL CONSISTENCY POINTS	) ) )	
TORVIS		Cesari and McKenna, LLP 88 Black Falcon Avenue Boston, MA 02210 July 12, 2005

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Melissa L. Altman

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

#### **INFORMATION-DISCLOSURE STATEMENT**

In keeping with the duty of candor and good faith owed to the Patent and Trademark Office, Applicants wish to bring to the Examiner's attention the references listed on the accompanying form PTO-1449. A copy of each listed reference is enclosed.

PATENTS 112056-0123 P01-1572

To the extent required by 37 C.F.R. §1.98(a)(3), Applicants have described what they consider to be the relevance of any foreign-language reference. The Office may find additionally relevant material in these or other references.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

Duane H. Dreger

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Substitute for form 1449A/PTO

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MFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known

Application Number 10/705,470

Filing Date November 10, 2003

First Named Inventor Robert L. Fair et al.

Group Art Unit 2184

Examiner Name Not yet assigned

Attorney Docket Number 112056-0123

01-11-1994

(use as many sheets as necessary)

Sheet 1 of 3

5,278,979

U.S. PATENT DOCUMENTS						
		U.S. Patent Document		U.S. Patent Document Name of Patentee or Applicant	Date of	Pages, Columns, Lines, Where Relevant
Examiner Initials *	Cite No.1	Number	Kind Code <sup>2</sup> (if known)	of Cited Document	Publication of Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear
	1	4,570,217		Allen et al.	02-11-1986	
	2	5,163,131		Row et al.	11-10-1992	
	3	5.202.979		Hillis et al	04-13-1993	

Foster et al.

	OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS							
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.						
1.0	5	AKYUREK, SEDAT, Placing Replicated Data to Reduce Seek Delays, Department of Computer Science, University of Maryland, UMIACS-TR-91-121, CS-TR-2746, August 1991.						
	6	BITTON, DINA, Disk Shadowing, Proceedings of the 14th VLDB Conference, LA, CA 1988.						
	7	CHAUDHURI, SURAJIT, ET AL., Self-Tuning Technology in Microsoft SQL Server, Data Engineering Journal 22, 2 1999 pp. 20-27.						
	8	CHUTANI, SAILESH, ET AL., The Episode File System, In Proceedings of the USENIX Winter 1992.						
	9	COYNE, ROBERT A., ET AL., Storage Systems for National Information Assets, Proc. Supercomputing 92, Minneapolis, Nov. 1992, pp. 626-633.						
	10	FINLAYSON, ROSS S., ET AL., Log Files: An Extended File Service Exploiting Write-Once Storage Department of Computer Science, Stanford University, Report No. STAN-CS-87-1177, September 1987.						
	11	GRAY, JIM, ET AL., The Recovery Manager of the System R Database Manager, ACM Computing Surveys, (13)2:223-242 1981.						
	12	HECHT, MATTHEW S., ET AL. Shadowed Management of Free Disk Pages with a Linked List, ACM Transactions on Database Systems, 8/4, December 1983, pp. 503-514.						
	13	HOWARD, JOHN, H. ET AL., Scale and Performance in a Distributed File System, Carnegie Mellon University, CMU-ITC-87-068, August 1987.						

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<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449A/PTO					Complete if Known	)
INFORMATION DISCLOSURE				Application Number	10/705,470	
			CLOSURE	Filing Date	November 10, 2003	
STATEMENT BY APPLICANT		First Named Inventor	Robert L. Fair et al.			
				Group Art Unit	2184	, ,
	(use as many she	ets as	necessary)	Examiner Name	Not yet assigned	
Sheet	2	of	3	Attorney Docket Number	112056-0123	

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	14	HOWARD, JOHN H., An Overview of the Andrew File System, Carnegie Mellon University, CMU-ITC-88-062 1988.	
	15	HOWARD, JOHN, H. ET AL., Scale and Performance in a Distributed File System, ACM Trans. Computer System, 6(1), Feb. 1988 pp. 51-81.	
,	16	KAZAR, MICHAEL LEON, Synchronization and Caching Issues in the Andrew File System, Carnegie Mellon University, CMU-ITC-88-063.	
	17	KAZAR, MICHAEL L., ET AL., DEcorum File System Architectural Overview, USENIX Summer Conference, Anaheim, California, 1990.	
	18	KEMPER, ALFONS, ET AL., Performance Tuning for SAP R/3, Data Engineering Journal 22, 2 1999 pp. 33-40.	
	19	KENT, JACK ET AL., Optimizing Shadow Recovery Algorithms, IEEE Transactions on Software Engineering, 14(2): 155-168, February 1988.	
	20	KISTLER, ET AL., Disconnected Operation in the Coda File System, ACM Transactions on Computer Systems, Vol. 10, No. 1, February 1992, pp 3-25.	,
	21	LORIE, RAYMOND, A. Physical Integrity in a Large Segmented Database, ACM Trans. Database Syst., vol. 2, March 1977, pp. 91-104.	_
11	22	OUSTERHOUT, JOHN ET AL., Beating the I/O Bottleneck: A Case for Log- Structured File Systems, Technical Report, Computer Science Division, Electrical Engineering and Computer Sciences, University of California at Berkeley, October 30, 1988.	
	23	PATTERSON, D., ET AL., A Case for Redundant Arrays of Inexpensive Disks (RAID), Technical Report, CSD-87-391, Computer Science Division, Electrical Engineering and Computer Sciences, University of California at Berkeley 1987.	
	24	PATTERSON, D., ET AL., A Case for Redundant Arrays of Inexpensive Disks (RAID), SIGMOD International Conference on Management of Data, Chicago, IL, USA, 1-3 June 1988, SIGMOD RECORD (17)3:109-16 Sept. 1988.	•
	25	PETERSON, ZACHARY NATHANIEL JOSEPH, Data Placement for Copy-on-Write Using Virtual Contiguity, University of CA, Santa Cruz, Master's Thesis for the Department of Science in Computer Science, September 2002.	

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	26	QUINLAN, SEAN, A Cached WORM File System, Software-Practice and Experience, 21(12):1289-1299 1991.	
	27	ROSENBLUM, MENDEL, ET AL., <i>The LFS Storage Manager</i> , Computer Science Division, Electrical Engineering And Computer Sciences, Univ. of CA, presented at Summer '90 USENIX Technical Conference, Anaheim, CA June 1990.	
	28	ROSENBLUM, MENDEL, ET AL. The Design and Implementation of a Log- Structured File System July 24, 1991 pp1-15.	
	29	ROSENBLUM, MENDEL, The Design and Implementation of a Log-Structured File System, 1992 pp. 1-93.	
	30	ROSENBLUM, MENDEL, ET AL., The Design and Implementation of a Log- Structured File System, In Proceedings of ACM Transactions on Computer Systems, (10)1:26-52, February 1992.	
- · · -	31	SCHIEFER, BERNI, ET AL., DB2 Universal Database Performance Tuning, Data Engineering Journal 22, 2 1999 pp. 12-19.	
	32	SELTZER, MARGO I., ET AL., Journaling Versus Soft Updates: Asynchronous Meta-Data Protection in File Systems, Proceedings of 200 USENIX Annual Technical Conference, 6/18-23/2000.	
	33	SHASHA, DENNIS, Tuning Time Series Queries in Finance: Case Studies and Recommendations, Data Engineering Journal 22, 2 1999 pp 41-47.	
	34	SIDEBOTHAM, BOB, Volumes: The Andrew File System Data Structuring Primitive, EEUG Conference Proceedings, Manchester, UK, Autumn 1986.	
	35	SUBRAMANIAN, MURALIDHAR, ET AL., Performance Challenges in Object-Relational DBMSs, Data Engineering Journal 22, 2 1999 pp 28-32.	
	36	WEIKUM, GERHARD, ET AL., Towards Self-Tuning Memory Management for Data Servers, Data Engineering Journal 22, 2 1999 pp 3-11.	
	37	WEST, MICHAEL, ET AL. The ITC Distributed File System: Prototype and Experience, Carnegie-Mellon University, Technical Report CMU-ITC-040, March 1985.	
	38	ZAYAS, EDWARD R., AFS-3 Programmer's Reference: Architectural Overview, Transarc Corporation, Pittsburgh, PA, 1.0 edition 1991.	

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